

REMARKS

Information Disclosure Statement

In order to insure compliance with Applicant's duty of disclosure, enclosed is form 1449 (in two sheets). U.S. patent 6,227,331 (cite no. 15) is a patent which issued to Applicant on a continuation application of parent application 08/912,435. A copy thereof is therefore not enclosed. Copies of the remaining references listed thereon are also not enclosed, as allowed by 37 CFR 1.98(d), since each was previously cited by or submitted to the Office in prior application 09/695,338, filed October 24, 2000 (except that references 16 to 18 were cited by the Office in prior application 09/946,579, filed September 5, 2001), which prior applications are relied upon for earlier filing dates under 35 USC 120. It is respectfully requested that each of these listed references be considered.

As discussed hereinafter, it is respectfully submitted that each of the newly submitted claims is unobvious over the references listed in the above Information Disclosure Statement and is therefore patentable.

An important objective of the present invention is to provide a working platform below a bridge deck or other structure upon which work such as painting is to be performed (i.e., work structure) wherein the platform is quick, easy, and economical to erect and later dismantle, i.e., so that the platform may be repeatedly assembled and disassembled for application to other structures. It is also important that this be done safely. In order to achieve this objective, in accordance with the present invention, a plurality of cables are attached or secured at their ends to the work structure such as to bridge piers or otherwise placed. Thus, the portable platform may advantageously be

applied to various structures. Then, a plurality of flooring panels are laid in side-by-side relation to rest on the cables and are oriented to extend transversely of the cables and are releasably secured thereto. The flooring sections are individually removable, in accordance with the present invention, to not only allow the platform to be repeatedly assembled and disassembled but to also allow convenient and quick access through the flooring of the platform in emergency situations, such as if a worker becomes seriously ill or injured and needs to be lowered safely to the ground below.

A compression clamp assembly clampingly engages each of the structural members. The compression clamp assembly comprises plate means for engaging opposite sides of a respective structural member and compression force applying means connected to the plate means for forcing the plate means against opposite surfaces of the respective structural member. Each end of the cables is secured to a respective compression clamp assembly so that the plane of the cables is at a desired position relative to the structure portion so that an appropriately positioned floor can be erected thereon. Also importantly, the compression clamp assembly allows flexibility in quick and easy attachment to and detachment from various shapes and sizes of bridge structures.

A dilemma addressed by the present invention is how to attach the panels to the cables, which run underneath the panels, by workmen positioned on top of previously laid panels, since reaching around an edge of a panel would be dangerous as well as difficult. In order that the individual panels or flooring sections may be quickly and easily yet securely attached to the cables, in accordance with the present invention, an opening is provided in the panel which is large enough that a U-bolt or other hook-shaped member (such as seen in FIG. 11) may be

translated therethrough, i.e., both legs of the U-bolt passed through the opening at the same time. Thus, the opening must be much larger than merely the diameter of one of the legs. The U-shaped or hook-shaped member is at least partially translated by a worker through the opening in a downwardly direction from an upper surface of the flooring section to a lower surface of the flooring section so as to extend below the flooring section while the worker safely holds the U-shaped member from above the flooring section. While continuing to hold the U-shaped member, the cable is safely as well as easily and quickly received in the eyelet formed between the U-shaped member and the panel and the U-shaped member secured relative to the panel so that the cable is securely attached to the panel. Fastening apparatus may thus be applied from on top of the panel rather than requiring the workers to dangerously reach around a panel edge. The flooring sections are individually removable from the floor by means of the U-shaped members. Thus, the flooring sections may be easily and quickly yet safely individually installed in and removable from the floor, and the platform may be easily and quickly yet safely repeatedly assembled and disassembled and the platform applied to various structures.

Thus, there is provided, in accordance with the present invention, a platform which allows easy, quick, economical, safe, and repeated erection and dismantling for a variety of bridge structures and further allows quick and convenient access through the flooring in emergency situations.

The Mohawk reference discloses in a sketch (section B-B) a platform supported below a deck wherein a metal deck member of the platform receives at each end a U-bolt with the U-bolt legs received in the member and the portion connecting the legs disposed below the member, and a cable running underneath the

member is received in the connecting portion of the U-bolt. The member is one of a plurality of members laid side-by-side on a plurality of the cable to form the platform.

The Mohawk reference does not show either a single opening in the deck member in which both legs of the U-bolt are received or a pair of openings in the deck member in which the legs of the U-bolt thereof are received respectively. Thus, Mohawk does not show, disclose, teach, or suggest an opening sized for translation (motion in which every point of the moving object has simultaneously the same velocity and direction of motion, as defined by Webster's New World Dictionary of the American Language, second college edition) of a U-shaped or hook-shaped member therethrough, as provided by the present invention.

Furthermore, the lack of a plate or plates in Mohawk to overlies the metal decking and receive the legs would lead reasonably to a belief, if 20-20 hindsight is not applied, that the decking had individual holes for the U-bolt legs and thus the legs need only be secured by nuts threadedly fastened on the upper ends thereof. Moreover, if a single large hole for receiving both legs were intended, it is respectfully submitted that it would be reasonably expected that the sketch in Mohawk would have shown such a single large hole, since such a single large hole would have been considered a big-time improvement. Mohawk thus missed the critical feature to make its idea work safely in practice. Thus, it is respectfully submitted that Mohawk reasonably teaches a pair of holes for the legs respectively and thus teaches away from the present invention.

U.S. patent 629,935 to Sturgis discloses a suspension bridge which includes horizontal joist cables which are anchored in dead men at each end of the bridge, and flooring planks are laid transversely over the joist cables. Stringers or rails are laid

on the floor planks, at the ends and centrally thereof. The stringers and floor planks are united firmly together and to the joist cables by hook-bolts, shown at 37 in Figs. 3 and 12 thereof, which pass through the stringers and certain of the planks and have their hooks engaged with the joist cables.

Sturgis further discloses railing cables attached to main cables by clamps, illustrated in Fig. 10, each of which consists of a strap which is bent to embrace the main cable and has an extended arm the free extremity of which is bent to produce a guide eye or loop. The clamp is held in place on the main cable and the strands of the railing cable by a clip plate against which bears a nut or nuts, and the extended eye or hook of the clamp serves as a guide to the wire when it is drawn from the reel or spool in the process of forming the cable. See page 3, lines 89 to 100, thereof.

It is of course evident that holes are provided in the stringers and planks of Sturgis for receiving the shank or straight portions of the hook-bolts. However, Sturgis does not teach or suggest that the holes be large enough to translate the hook portions of the hook-bolts therethrough, as provided by the present invention. Since the Sturgis bridge is a permanent structure and since Sturgis teaches that the stringers and floor planks are united firmly together (see page 3, lines 35 and 36, of Sturgis), there is no motivation or impetus in Sturgis for making the holes larger in size to accommodate the hook portion. Since the teaching of Sturgis is to achieve a firm uniting of the stringers and floor planks and since large holes mitigate against such a firm union, it is respectfully submitted that Sturgis teaches away from the present invention.

U.S. patent 5,299,655 to Margaritis discloses a bridge structure to which is attached a workplace support and enclosure

wherein a floor is provided by chainlink fencing, illustrated at 54 in Margaritis, supported by spaced longitudinally-extending cables, illustrated at 36 in Margaritis, and with flexible fabric overlying the fencing. The cables are installed below the bridge substructure by attaching opposite ends of each cable to a beam support bearing, illustrated at 18 (Fig. 6) in Margaritis, by use of cable slings, clevis, and turnbuckles, or to other essentially immovable portions of the bridge substructure. Vertical cables support the mid-span of the floor supporting cables. The fencing is attached to the cables by "any suitable clip or fastener", as stated at col. 4, lines 52 and 53, of Margaritis. A tarp overlies the fencing and is affixed to the cables "by rings or clips extending through small openings in the tarp", as stated at col. 4, lines 57 to 62, of Margaritis.

Margaritis does not disclose or suggest the combination of flooring panels and cables and certainly does not disclose or suggest means for releasably securing flooring panels to cables so that the flooring panels are individually removable from the floor and so that the platform may be repeatedly assembled and disassembled, as provided by the present invention.

Margaritis also does not disclose or suggest the attachment of the cables by means of compression clamps and certainly does not disclose or suggest a compression clamp assembly therefor which comprises plate means for engaging opposite sides of a respective structural member and compression force applying means connected to the plate means for forcing the plate means against opposite surfaces of the respective structural member, as provided by the present invention.

U.S. patent 2,198,960 to Deck discloses a scaffold having a clamp which holds guard rail triangles to a platform 10. The platform is formed of spaced longitudinally extending boards and

angle irons including the triangles, the triangles having base bars 17 which extend underneath the platform. For clamping the guard rail triangles to the scaffold, a pair of bars 18 are arranged transversely of the ends of the platform (transversely of the spaced boards) on the upper surface thereof. A hook 22 is passed through a slot 21 in each bar, between the boards of the platform, and are engaged by the base bars of the guard rail triangles. Nuts 29 are mounted upon the hooks and contact with the upper faces of the bars. The nuts are tightened to draw the bars and base bars of the triangles snugly against the top and bottom faces respectively of the platform.

Contrary to the present invention, the platform 10 of Deck is undoubtedly a single unitary structure, and the hooks are passed between spaced boards thereof (not through holes in the boards). Thus, Deck does not disclose a floor comprising a plurality of flooring panels each having an opening therein for passage of a eyelet portion, as provided by the present invention. Neither does Mohawk or Sturgis or Margaritis disclose such a structure.

Moreover, Deck does not teach or suggest how the hook is inserted for clamping the triangles to the platform. However, since workers would undoubtedly not stand on the unitary platform of Deck for attachment and removal of the clamp, it is apparent when viewing Fig. 3 of Deck that it would be easier to insert the straight shanks of the hooks from underneath than to wrestle with inserting the curved hook portions through the slots of the bars then rotating the hooks 90 degrees to cause them both to pass between a respective pair of platform boards. It can thus be reasonably inferred that the shank would be inserted from underneath the platform. It is thus apparent that the purpose of the slots in the bars is not for insertion of the curved hook

portion but instead to achieve alignment between the slots and the spacings between the boards so that it is easier to insert the shanks of the hooks from underneath the platform. Thus, Deck does not provide any impetus or motivation for combining Deck with Mohawk.

Even if Mohawk and Deck were properly combinable, the combination still would not result in the present invention since neither of these references (or Sturgis or Margaritis) discloses or suggests, and the combination thereof would still not result in, a floor comprising a plurality of flooring panels each having an opening therein for passage of a eyelet portion, as provided by the present invention. It is respectfully submitted that only through the perfection of hindsight could the leap be made to say that somehow the present invention is suggested by the combination of these two references along with Sturgis (a permanent structure) and Margaritis.

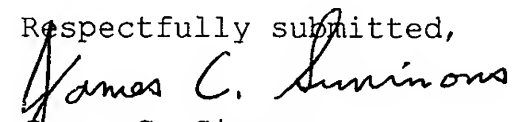
In summary, neither Mohawk nor Deck nor any other of the references cited by the Examiner in rejection of the claims discloses, teaches, or suggests a temporary floor support structure for a variety of bridge structures with an opening in a flooring section which is sized for translation of a U-shaped or hook-shaped member therethrough (i.e., both legs of a U-shaped member received in the single opening) for detachable attachment of the flooring section to a cable, as provided by the present invention, so as to enable workers to easily and quickly yet safely install U-bolt assemblies to detachably attach flooring sections to cables without having to dangerously reach around edges of the flooring sections. Moreover, Deck teaches away from the present invention by its provision of a scaffold wherein fasteners are undoubtedly insertable from underneath the unitary platform by passage of the shank portions of the fasteners



upwardly between board spacings and through slots of transverse members (not through holes in the boards, as in the present invention).

For the reasons discussed above, it is respectfully submitted that each of the pending claims is patentable and that this application is in condition for allowance, and such is respectfully requested. If it would aid in advancing this application to issue, the Examiner is respectfully urged to call the attorney for Applicant at the number below.

Respectfully submitted,

  
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